



APPRENTICESHIP, AND A BOY'S PROSPECT OF A LIVELIHOOD.

—o:—
*Read before the Philadelphia Branch of the American Social
Science Association, March 21, 1872.*

BY JAMES S. WHITNEY.

—o:—

AND REPORT OF THE DISCUSSION.

AN apprentice, in common parlance, is a servant bound to work at a particular trade for a term of years, receiving payment partly in money, board, or clothing, and partly in instruction in the trade; his employer being also bound to provide these during the term of service. But the word means "a learner," simply, coming to us through the French *apprenti* from the Latin, and has its equivalent in the German "*Lehrbursch*." As we shall see, it was long applied to students in all branches of knowledge. I shall use it with reference to learners of the manual arts, who, during the greater part of the time of which I shall speak, have been *bound* or *indentured* apprentices. I propose to trace the history of apprenticeship, to state its present condition, and the natural inferences from these as to its future.

Naturally, we should not look for the learners of arts but in those places or ages in which population has reached considerable density, and a demand exists for skilled labor. But when we turn to the civilized nations of antiquity, with whom these conditions are found, we discover nothing corresponding to the modern system of apprenticeship. There is no Greek or Latin word corresponding in meaning to that first given above of the word

“apprentice.” The Roman law is silent with regard to those reciprocal duties of master and apprentice, which make so large a part of modern codes. The prevalence of slavery, and the division of the people into fixed social classes, account for this. The instinctive love of freedom provokes a scorn of all that is associated with its loss, and where the laborer is generally a slave it is not natural that children of free parents should enter into anything like a contract of servitude. I am not sure that modern society has yet altogether outgrown this feeling as to labor, originating in the slave-holding era of nearly all nations. There was besides no evident economic advantage in free labor. The hunter can provide game with less capital than the stock-raiser can furnish meat; and a slave, a perpetual minor, could be captured or bought, with a fair knowledge of an art, at less expense than a free youth could be maintained and taught. They whom the fortunes of war made slaves abroad had already, at home, following usually the trades of their fathers, qualified themselves for their future positions. Labor and obedience become hereditary wherever idleness and power become so; and if it be impossible for a lower class to pass into a higher, its members will naturally occupy among themselves similar relations, in successive generations.

It is therefore not until slavery and serfdom begin to disappear that apprenticeship arises in Europe. The hours of day number from midnight; and the shadows of the ancient order reach down through the twilight period of the modern era, to the times of Charlemagne. With the new growth of the arts, the Guilds of Crafts appear; not probably a revival of the Greek societies, or the Roman colleges of workmen, but, like the guilds for religious and other purposes, independent offshoots from the same root, the tendency to association for the common welfare, found in all the European races. The history of the guilds, interesting as it is in itself and in its relation to the history of social progress, is beyond our province to-night, further than in its connection with our subject. Of their *general* and *common* features, a very good idea will be given by the following example: the “Agreement of the Guilds of Exeter” (England), dating perhaps from a century before the Norman conquest. (*From Smith’s History of English Guilds.*)

“ This assembly was collected in Exeter, for the love of God, and for our soul’s need, both in regard to our health of life here, and the after days which we desire for ourselves, by God’s doom. Now we have agreed that our meeting shall be thrice in the twelve months ; once at St. Michael’s mass, the second time at St. Mary’s mass, after mid-winter, and the third time at Allhallow mass-day after Easter. And let each gild-brother have two sesters of malt, and each young man one sester, and a sceat of honey. And let the mass-priest at each of our meetings sing two masses, one for living friends, the other for the departed ; and each brother of common condition two psalters of psalms ; one for the living and one for the dead. And at the death of a brother, each man six masses, or six psalters of psalms ; and at a death each man five pence. And at a house burning each man one penny. And if any one neglect the day, for the first time three masses, for the second five, and at the third time let him have no favor, unless his neglect arose from sickness or his lord’s need. And if any one neglect his contribution at the proper day, let him pay two-fold. And if any one of this brotherhood misgreet another, let him make boot (amends) with thirty pence. Now we pray, for the love of God, that every man hold this meeting rightly, as we rightly have agreed upon it. God help us thereunto.”

The guilds formed for the protection of the inhabitants of towns from their feudal lords, in England from the seventh, in Germany from the ninth, and in France from the tenth century, including gradually all the citizens, and having obtained the royal sanction to ordinances framed for their own government, passed unnoticed into civic corporations.* In the eleventh and twelfth centuries they began to divide into their constituent elements. The trades of merchant and manufacturer, originally carried on by the same person, had become separated, the richer workman growing into the dealer ; and the merchants now excluded from

* The connection of the town government with the guild throughout Europe is an inviting study. At least two writers, Thierry, in France, and Kemble, in England, have attributed to the latter the *origin* of towns in Northern France and in England. See Hallam, “ State of Europe,” I, p. 349; and Brentano p. 105 (in Smith’s “ History of English Gilds”), as to the same connection in Germany. Dr. Brentano’s Essay has been my chief authority for the history of guilds.

the guild the men “with dirty hands” or “blue nails,” or who “hawked their wares in the street” (as the Danish, Belgian and German statutes declare), in short the craftsmen and small dealers. With the government of the towns in their hands, the guilds, now became largely mercantile associations, were able to oppress these classes quite as notably as they defended the liberties of the town against the nobles. The result, of course, was the formation of guilds among the craftsmen, and struggles for political power between the old and new organizations, sometimes ending in a compromise, but generally in the supremacy of the workingmen, as the more numerous party, in the manufacturing towns at least.

Thus in Italy “the principal cities, and especially Milan, reached, before the middle of the 12th century, a degree of population very far beyond that of the capitals of the great kingdoms. Within their strong walls and deep trenches, and in the midst of their well peopled streets, the industrious dwelt secure from the license of armed pillagers and the oppression of feudal tyrants. Artisans, whom the military land-holders contemned, acquired and deserved the right of bearing arms for their own and the public defense. Their occupations became liberal, because they were the foundation of their political franchises; the citizens were classed in companies according to their respective crafts, each of which had its tribune or standard-bearer (gonfalonier), at whose command, when any tumult arose, or enemy threatened, they rushed in arms to muster in the market-place.” “The basis of the Florentine polity was a division of the citizens exercising commerce into their several *companies* or *arts*. These were at first twelve, seven called the greater arts, and five lesser; but the latter were gradually increased to fourteen. The seven greater arts were those of lawyers and notaries, of dealers in foreign cloth . . . of bankers or money changers, of woolen drapers, of physicians and druggists, of dealers in silk, and of furriers. The inferior arts were those of retailers of cloth, butchers, smiths, shoemakers and builders. This division, so far at least as regarded the greater arts, was as old as the begining of the thirteenth century. But it was fully established, and rendered essential to the constitution in 1266. By the provisions made in that year, each of the seven greater arts had a council of its own, a chief magistrate or con-

sul who administered justice in civil causes to all members of his company, and a banneret (gonfalonier) or military officer, to whose standard they repaired, when any attempt was made to disturb the peace of the city.” (Hallam, State of Europe, etc., vol. i, pp. 368, 419.)

In Germany, the Low Countries, and England, the guilds of the Weavers, the first in time and in importance, were already strong in the eleventh and twelfth centuries. Craft-guilds arose generally throughout Europe from the beginning of the eleventh to the middle of the thirteenth century. By the fourteenth and fifteenth, subject of course to variation in different places and circumstances, they had almost everywhere, where they existed, obtained the control of the government of the towns, and their trade regulations had become municipal law. This result was not reached on the continent without bloody contests with the older or mercantile companies, and with the nobles or churchmen claiming jurisdiction in the cities. In England, as usual, the revolution was a more peaceful one. The kings usually sided with the rising power to check that of the nobility, receiving certain taxes in return for their aid. In fact, kings and nobles sometimes became honorary members of a guild.

The chief special function of a craft-guild was to regulate the manufacture of the articles produced by the craft. Their “laws of trade” were such in spirit and form as the following: All who carried on a trade in any place must belong to the guild of that trade. The wardens had the right “to examine all manufactures, and to search for unlawful tools and products.” “No member was allowed to possess tools, ‘unless the same were testified to be good and honest,’ and the statutes contained directions and prohibitions, entering into the most minute details, with reference to the method of working.” “The punishments consisted in the payment of fines, or, in earlier times, of certain quantities of wax” for the lights used in worship, “or of beer or wine to be drunk at their feasts.” To enforce payment of dues or fines, the tools of delinquent members were sometimes taken away. “No one was admitted to any trade, or tolerated in it, whose moral conduct and honor were not stainless; no one, also, who had not proved himself a proper workman, and, therefore, *no one who had not served a regular apprenticeship.*”

It is at this point that this history connects itself with our subject. “ The duration of this apprenticeship differed in different trades. In England it generally lasted seven years; in France, from three to four—sometimes six; in Germany, from two to four years. The admission of an apprentice was an act of special solemnity, corresponding to the important legal consequences it involved. As it was the beginning of a kind of novitiate to citizenship, it generally took place in the town hall, in the presence of the town authorities (in London, ‘as late as 1869,’ it is performed in the guild hall by the chamberlain of the city), or in solemn meeting of the craft-guild. On this occasion the apprentice was specially instructed in his duties, both as to his moral conduct and the trade. At last, a record of the act, the indenture, was drawn up, which also contained the special conditions under which the apprentice was placed with his master. By this admission the apprentice became a member of the family of his master, who instructed him in his trade, and who, like a father, had to watch over his morals, as well as his work, during his apprenticeship. At the expiration of his apprenticeship the lad (then a man) was received into the guild again with special forms and solemnities, *and became thereby a citizen of the town.* On both occasions a fee had to be paid.*

The number of servants (meaning helpers as well as trained workmen), and of apprentices, allowed each member, was often limited by the guild laws. Thus by the ordinances of the guild of the tailors of Exeter, which had been long founded in 1466; “also hyt ys ordeyned, by the Master and Wardens and all the hole crafte, that fro henseforthe no man of the said crafte shall hold but iij [3] servantes and oo [1] prynthes at the most, w^towte lesanse of the Master and Wardensse for the tyme beyng, apon Payne of xlii s. [40 shillings], and he that prayeth for hym that dothe ayenste this oadynance schal forfeit xxii s. [20 shillings].” As another specimen of these rules: “Also it ys ordeyned by the Master and Werdons and the craft forsayd, that every prentes of the sayd craft that is inrolled and trewly servethe his cownand [covenant], shall pay a spone of selver, wayyng a nonsse, *and the*

*Brentano, p. 129, etc. The title of master, as applied to a citizen (our *mister*), may have arisen from this connection of mastership in art with citizenship.

fassion, and shall elde a brekefast to the forsayde M. and Wardons, afore the day that he be abull to be made fre-man of the cite foresayd.” (History of English Gilds.)

It was with such features that apprenticeship, about the 14th century, arose in Europe. The system, formed in advance of governmental legislation, a natural outgrowth of the social state, was exactly suited to the condition of the times. There was, with the exception of the Belgian clothiers, no large “working-class” in the modern sense, and no capitalist employers. The apprentice was often the only helper of his master, and when free, soon took his apprentice and carried on his craft for himself. Of course it was easier to find apprentices than workmen. But it was a system that made good workmen and good citizens. It is to its existence that we owe such tales, homespun as they seem, as Hogarth’s “Industrious and Idle Apprentice” illustrates; such stories, “true or well found,” as of the exploits of the “Prentes Boys of London,” who had their trainbands in the civil wars, and sent successful memorials to Parliament. As the business of a master increased, “servants” or workmen who had not served an apprenticeship were employed, but it was forbidden to “teach them the craft as one would his apprentice.” Many of the latter class were of distinguished parentage, and many, who were not, gained it for their children, by honorably reaching and filling high public office. The name of “apprentice” was an honorable one. Benchers in the Inns of Court (in England)s now called Barristers, were styled, until near the close of the 16th century, “Apprentices of the Law.” The incorporated trades, or guilds, were called “universities.” “The university of smiths, or of tailors,” etc., are expressions which we commonly meet with in the old charters of ancient towns. When those which are now called peculiarly ‘universities’ were first established, the term of years which it was necessary to study in order to obtain the degree of master of arts, appears evidently to have been copied from the term of apprenticeship in common trades, of which the incorporations were much more ancient. As to have wrought seven years under a master properly qualified was necessary to entitle any person to become a master and to have himself apprentices in a trade, so to have studied seven years under a master properly qualified was necessary to entitle him to become a master, *i. e.*, teacher or doctor,

(synonymous words) in the liberal arts, and to have scholars or apprentices (words also synonymous), under him.’’ (Encycl. Britt.)

But the same process of elevation—of the lower social elements to a higher level—which had originated the craft-guilds, wrought their destruction also when they had performed their work. Milman (*History of Latin Christianity*) points out “the hereditary tendency” under the feudal system, “of everything, from the throne to the meanest trade. The son followed the trade, and succeeded to the tools, the skill of his parent.” It was natural that guild members should extend special privileges to their sons, as in France, where a son, living in his father’s house till seventeen years old, was considered to have served an apprenticeship to his trade. Such practices, with the accumulation of wealth in successive generations, gradually made the guilds close corporations of capitalists. The workingmen employed, as a result of this, in large numbers, by an individual or company, began to form a distinct class. These men, not able to employ capital or labor, excluded from and oppressed by the guilds, as *all* craftmen had formerly been by the merchants, made, in self-defense, associations among themselves, the direct ancestors of the modern trades-unions. Here we have the beginning of the present factious antagonism of capital and labor. From the close of the 14th century we find throughout Europe statutes to protect the workmen from the corporations. Froude (*History of England*) tells us that, in 1531, “the craft wardens of the various fellowships, ‘out of sinister mind and purpose,’ were levying excessive fees on the admission of apprentices, and when Parliament interfered to bring them to order, they ‘compassed and practiced by cautill and subtle means, to delude the good and wholesome statutes passed for remedy.’” In the reign of Queen Mary of England it was enacted, on the ground that “the rich clothiers do oppress the weavers” (by the possession of greater facilities) “that no clothier shall keep more than two looms, nor more than two apprentices, etc.” It will be seen that while the employer in one view of his interest was willing to restrict the number of learners of his trade, in another he was glad to avail himself of the cheap labor they supplied. But all legislation, on either side, became a dead letter before the power of capital wielded by in-

dividuals and companies outside of either party, and assisted by new mechanical and chemical appliances; and while the guilds linger in England in the vague form of "Liveried Companies," maintaining their existence by an annual dinner, in France they perished, with all that was oppressive, in the first Revolution, and in Germany have been gradually legislated out of being.

With their decay began the decay of apprenticeship. The concentration of large numbers of workmen in one establishment made it impossible for the employer to oversee, as formerly, the entire life of the apprentice. The growth of democratic principles weakened the habit of subordination and the principle of reverence; the quickened social and mercantile life threw before all classes greater opportunities of sudden wealth; the *Ars longa, vita brevis* of older times, which had been the foundation of much good work, was practically rendered, "Life is short, and to learn well an art takes too long," and so the old apprenticeship began to die with the guilds of which it was the flower and fruit. But the ripened seed has remained, and from its present decay we hope to show there may arise a new and more vigorous plant.

So far as apprenticeship exists, it retains the features due to the origin we have described. The laws of the State, or the present customs respecting it, are borrowed from or founded on the earlier ones framed by the guilds. By the "statute of apprenticeship" (1563) no person was allowed to carry on any "trade, craft, or mystery" then used in England, "unless he had previously served to it an apprenticeship of seven years at least,"* which had long been a by-law of many corporations. It was also provided that only those youths might be taken whose parents possessed a certain fortune. Whoever had three apprentices must keep one journeyman, and for every additional apprentice, another jour-

* Under this law the English Courts have ruled "that a coachmaker can neither himself make, nor employ journeymen to make his coach wheels, but must buy them of a master wheelwright; this latter trade having been exercised in England before the 5th of Elizabeth (1563). But a wheelwright, though he has not served an apprenticeship to a coachmaker, may either himself make or employ a journeyman to make coaches, the trade of a coachmaker not being within the statute, because not exercised in England at the time it was made." (Encycl. Britt.) The absurdities to which such laws lead are well illustrated by this extract.

neyman. (By other laws, the number of apprentices in certain trades, was restricted absolutely, without regard to the number of journeymen.) Fees, varying from one pound to fifty pounds were required at the signing of indentures, and were taxed by the government. Overseers of the poor, with the consent of two justices, could bind the children of those unable to pay the fees, and tradesmen, husbandmen and gentlemen were obliged to take them. The prohibition as to carrying on trade without having been an apprentice, and some of the other features of this law, were repealed in 1814, at the petition of employers, after having long been evaded practically, and been the occasion of many disputes. Apprenticeship is now entered into in Great Britain as here, as a voluntary contract, subject to laws similar to ours. In Scotland there is no law regulating the term of service; three years is a common term, and both there and in Ireland apprenticeship has never been much restricted by law. In Germany the apprentice serves from three to five years, paying a larger fee for a shorter term. In case of a three years' service, at least among machinists, he pays his own board. In all cases he furnishes his own bed, which becomes his master's property at the expiration of the time. Before beginning business for themselves, the rule has prevailed, since the sixteenth century, that freed apprentices shall travel for three years, working at their trade in different cities, under the general name of *Gesellen*. In France, similar customs prevail; the time of service is from three to eight years, and of *compagnonage* (answering to *gesellschaft* or *fellowship*) five years. Before being permitted to carry on his craft as a master, the workman, after the fifteenth century, was obliged to execute and exhibit for the approval of the Master and Wardens a "*chef d'œuvre*," or master-work. This rule became obsolete in Germany, and I believe in France, about twenty-five years ago. In both countries both law and custom are gradually relaxing to the looseness of ours. Indentures are not required by law in France, Italy or Switzerland. In Italy, the practice is similar to the English, and both there and in Switzerland apprenticeship is a voluntary matter throughout. In the United States, until twenty or thirty years ago, up to which time apprenticeship was more common than now, the boy received, during his whole term of service (from five to seven years) besides his board and cloth-

ing and a suit of clothes at the end, as in Europe, twenty-five or thirty dollars yearly. But since the time referred to in this country, apprentices receive wages in lieu of and equal to board, for the first year, advancing by about fifty cents or a dollar per week, in successive years. One of the last legislative acts in this State on this subject shows how loose the practice had become in 1865, when it was enacted that no apprenticeship should be void on account of the want of indentures, if a contract could be proved otherwise.

Our review has brought us to our own time and country. It has shown the history of the system by which the artisans have been formed who have accomplished all that civilization displays of material achievement in the Christian era. But if it be now falling into disuse, is it because there is no more need of such men, or because they are furnished by some other agency? A moment's consideration of the mechanical work which this generation is undertaking will compel us to admit that its performance requires at least as highly skilled labor as that of our ancestors. There is, no doubt, place for such men. "But do they come when we call?" Is there not a general complaint of the want of thoroughly well skilled labor? The high price of many articles made in this country, as compared with those of foreign manufacture, is often said to be due to the scarcity of labor. What do we mean by this? Step with me into any one of our large factories, on any morning, in almost any season, and wait an hour in the office. It will be unusual if in that time there do not enter at intervals three or four sturdy men, asking, as they who ask favors, "Is there any chance for a man to get a job of work here?" "What is your trade?" "I've no trade—I'm looking for laboring work." "No, —we're full to-day." There is another class of applicants, who also have no trade, so to speak; men bred to the labor of the overcrowded counting-house and forced out at the slightest mercantile panic, to ask for anything they can do in the workshop. And we talk of the scarcity of labor! It is the scarcity of men *trained to do well what is wanted*, that we mean. Ah, these men that can only help, or that can do a little of anything, are very often burdens, instead of help to the community. Those men who walk away so dejected or so indifferent—thinking, perhaps, how much longer they can put off the landlord, or get credit at the

store, or hardened into carelessness as to either, are as much *men*, and as naturally capable of work as the mechanic whom the foreman *sent for* that morning. So have we seen armies of thousands, but with "plentiful lack" of soldiers. Suppose the proportions of the two classes of workmen were more equal, would there not be an equalization of wages, and a more frequent substitution of machinery for simple animal force, that would lessen the cost of production, and feed and clothe a far greater number than now?

The simple fact, then, of the existence of a large mass of unskilled labor, while skilled labor almost commands its price, shows that there are material and room for a large increase of the latter. But by what agency is this increase to be made—nay, by what agency is the present number of skilled craftsmen to be kept up? There is none but the system of apprenticeship, falling more and more into neglect though it be.

I have not been able to obtain the number of learners of the different trades in this city, which, as a large manufacturing one, will illustrate well the subject, but the following figures will throw some light on this inquiry:

The number of men and women employed in the manufactories of this city in 1870, as carefully collected by Mr. Lorin Blodget, was 127,590, of which the men are 72 per cent. The total number of "youths" employed was 10,286; and supposing the boys to be in the proportion of 60 per cent., there will be 6,172 of them.

Of these a very large number are children below the age of 16, the lowest age of apprentices, and many are not in any sense apprentices, so that the male "learners of trades" must be expressed by a much smaller number. The census report gives 5,832 as the "total number of apprentices," boys and girls, which no doubt includes many besides apprentices proper, while it is not likely to omit many of them. Taking the boys at 60 per cent., we have 3,500 as the extreme number of male apprentices in this city in 1870. There are about 8,000 establishments in which men and boys are employed, and 92,112 workingmen in shops. The apprentices, therefore, cannot exceed the proportion of 1 to every $2\frac{1}{4}$ shops, and to every 26 workmen—a proportion not equal to the requirements of the guilds, or the allowance of the trades-unions. As the number of boys between the ages of 16 and 21 must be at least 25,000, of whom not over 3,000 are

in school or college, it would seem that the small number of apprentices cannot be due to a deficiency of material.

But why do not the boys learn trades? This question, already answered, generally needs more specific reply. In the first place, boys are human; and in the second place, they are boys. Unfortunately, their parents are human, too, and the natural indisposition to hard work, and the preference for clean hand and clothes, is not always discouraged by parental ambition. The class of whom this may be said, though it may need it more, deserves not so much our sympathy as another, where ambition or necessity obliges the father to forego some of this indulgence, that the son may aid him in the support of the family, or be fitted to maintain another. Perhaps it is a mother, alone but for the boy, who is forced into the unnatural position of his parent's adviser, in deciding the momentous question of a trade. There are long discussions as to whether the family purse can bear the strain of the first two or three years, while the boy earns only his own board; and all choice must often be subordinated to the necessity of taking the trade which pays best and soonest. The first decision is perhaps for that of a machinist, which seems to have a great attraction for most boys. Yes, and our hero finds on the books of the larger establishments to which he first applies forty or fifty names already entered, waiting their turn. He cannot wait six months or a year, besides he finds that in the large shops frequently a boy works during his whole term on a few machines and does not learn the whole "handcraft." He goes to the smaller shops where the applicants are fewer, but the vacancies are fewer still. He asks a neighboring carpenter and builder for a place. But this trade does not take boys. The work is all prepared in mills, by men who have learned carpentering in the old times, or who have learned to attend a single machine, and there is nothing for a boy to do. He may not be strong enough for blacksmithing, and there are few boys wanted in the shops where general work is done, as the steam hammer can be both boy and man.

The bricklayers also seem "not to approve of boys"—as the master can oversee them but little, from the nature of the employment; bad work is a serious thing to remedy; and the contract system of building requires great economy and dispatch. Only boys who can stand hard work, too, need apply. With both

bricklayers and plasterers there is a prejudice against boys, as so many unfaithful learners have brought discredit on the name. Our hero asks to be a moulder; there is a better opening here, and the wages are good—beginning with \$3.50 or \$4.00 per week—but almost anywhere but in this city (and here, too, until a few years ago), the Union tells him that they allow but one apprentice to every ten men in a shop, after the one to which each shop is entitled. He has another rebuff from this source, when he asks to learn the art of printing. A rule of the Union declares that no member shall work in any *newspaper* office employing an apprentice, and allows in other offices only one apprentice to every five men, after the one to which each office is entitled. Repressing his ambition for the constructive arts, and that preservative of all others, our lad would be a tailor, or shoemaker. But scarcely any one will take apprentices at these trades. I am told that it is doubtful whether there is in this city an apprentice in the former—and that there are probably not over a dozen shops employing them in the latter. The work among tailors is done by men, mostly of foreign birth, each employing a female helper or two. But the best of the “foreign talent” does not immigrate, for of the 3,000 sewing tailors in the city, only about 300 are capable of the finest work. Notwithstanding the lack of learners among shoemakers, however, their Union forbids the employment in the shoe factories (where wages of \$25 per week are often made, and the greater part of the shoes for city and country trade) of any but those who have learned the art, at least so as to be able to make in some sort a shoe. Of course, the supply must be kept up by importation, or by half-educated home-learners tempted by the high wages, to work a year or two at the bench as apprentices. The bricklayers’ and plasterers’ Unions, too, have their restrictive rules, but they are not now enforced. The hatters have their’s and enforce them, I believe.

You will be as weary as our hero with further illustrations of this part of my subject. It is sufficient to say that in the majority of cases the boy is forced by necessity, or drawn by the prospect of greater immediate wages, to work in a bolt or umbrella factory, a type foundry or some such establishment, where he is paid “by the piece,” and can earn five or six dollars, or more, per week. He becomes a man, but he cannot maintain a

family even on wages that allowed him to dress showily when off work; he has learned no trade that will bring him more; and is obliged to give place to another generation of boys glad to take what he has outgrown. He becomes in a small way an adventurer, seeking for pay that represents an education which he has not; and often swells the number of incompetent artisans, a "dangerous class" who do our poor work of various kinds.

We have supposed the case of a boy who wishes, or whose parents wish him, to learn a trade. But what of that large class not above the necessity of labor, and who have no one who will or can procure them places? There are about five thousand of them here, enough to form at least the nucleus of a still more dangerous class. Many of these, through a kind Providence, and some act of their own or their parents, find their way to the House of Refuge, or they are taken into some "Home," whence they are provided with places to learn trades, or at least make a living. But let no boy, disheartened in his efforts to find such a place, look with jealous eye on the graduates of the House of Refuge. Few of them are apprenticed to handicrafts, the wages of which rapidly supply the place of capital. Out of thirty-nine boys indentured in 1870, twenty-seven were placed with farmers and ten were divided among seven trades. Out of forty in 1871, twenty-six went to farmers and eleven to nine trades. The balance in each year went to occupations other than trades.

We have looked at this matter chiefly as regards the boys' interest. But it has a larger, a national aspect. The scarcity of skilled labor is a direct loss of productive power, and so far a national waste. The truest capital of a country is its labor, and the standard of its value rises in proportion to its skill. That is a well-ordered household where every member contributes something to the common happiness. That is a well-ordered industrial establishment where the labor of every employee is economized. A nation partakes of the social and productive characteristics of both these organizations. In this audience, surely it is not necessary to refer to the objection that an increase of producers will lessen wages, further than to say that it lessens also the cost of all that is produced, and so makes small wages go further. Besides, I am speaking of a *change* of a multitude of almost non-producers into producers; not of an addition to the

population. And all this superabundant power is animal, not simply material, and requires to be fed, clothed and housed; so that the comparatively few competent workmen must earn enough not only for their own, but to aid in the support, in various ways, of their untaught and low-paid brethren.

In whatever way, therefore, we regard it, the evil is a serious one. No class is more fully sensible of this than workingmen, now employers, who served their apprenticeship twenty or thirty years ago, when indentures were more frequently made and respected. These say that they do not see where the skilled workers of the future are to come from. This is specially true of the trades where manual skill and strength have not been replaced by machinery. The boys who generally offer themselves for these are not such as employers feel safe in accepting. At present *we* obtain a large number of mechanics by immigration. Of 17,857 male immigrants for whom the labor bureau at Castle Garden, New York, found places in 1870, 3,186, say one-sixth, were mechanics. Almost all of these were settled in New York city, or its neighborhood. The trades chiefly represented were: shoemakers, 345; tailors, 315; cabinetmakers, 371; making about one-third of the whole. No doubt, of the large number not helped by this agency, many were also mechanics, and of sufficient means to be able to dispense with aid. But the same causes are at work abroad as here, as we have shown, to lower the standard of good work; and there may come a time when the student of social elegance as well as of social science may have as much reason to complain of the quality as of the price of his coat and his boots.

In what direction shall we look for a remedy for all this? To the laws of supply and demand? But these laws, if any, have superseded during the last fifty years the old apprentice laws, and to this pass are we come. The laws of Nature are blind forces, bringing good out of evil eventually, in their own destructive way, if man is incapable of utilizing them. But it is his province to study, to obey, and so to direct them, in political economy as well as in physics. The operation of the laws of trade cannot be prevented by combinations on any side, but great suffering may be avoided if a conflict is evaded. The progress of a locomotive is not stopped by a flock of sheep grazing by the track; but it is

undoubtedly better, for the engine as well as for the sheep, that some one should foresee the animals' propensity, and take the proper measures to keep them out of the way. To leave this matter to regulate itself is to leave it to the contending interests of employers and employed, which had so large a share in the breaking up of the old system. I do not enlarge upon the laws of the trade unions, because they are only a feature of this struggle. They are the narrow, but natural expression of the supposed interests of one class, in opposition to movements sometimes similar, sometimes supposed to be so, of the other. The boys, for whom I speak to-night, are in the interest of neither party, and of both; they are the children of the employer as well as of the workman, and may grow up interchangeably into either. And in their name I ask, Where is the larger spirit to which they may appeal from the three obstacles—themselves, the workman and the employer—blocking the door to apprenticeship and self-maintenance?

To whom can they appeal but to the Citizen—which the man, of either class, is, and the boy is to be? In the community of interests which citizenship represents, *all* interests are harmonized. Let us turn again to our history. It was the common municipal interest in the guilds, which formed them and made their rules law. The world has outgrown their system, but it can never outgrow the spirit that devised it, and that is illustrated in the works achieved under it. The State, into which the old guilds grew up and dissolved, is their true successor; and though she may easily, in the confusion of a transition period, have failed to realize her inheritance, or to wield with adequate intelligence and firmness her all-pervading power, she has not renounced them. It is *her* function to control this matter of apprenticeship, the key, nay, the door itself, of the labor question.

It may be said that the less Government interferes with labor the better—and why should it concern itself to find work for children rather than any other class? It might be answered, because they *are* children; but I prefer to rest my plea on the broader ground that this is not in itself a question of labor, but of education. What is education? Is it not a development of all the powers, so that that class or that one which best represents its possessor, may, by a sort of "natural selection," obtain its best

sphere of action? This is not accomplished where all lads are taught only such knowledge as prepares them to enter the counting-house, the scientific school, or the learned professions. I would have our public schools give to their pupils such a knowledge of tools, and of the simpler processes of the manual arts, that a boy could enter upon these on the same footing that he can obtain a clerkship in a store, receiving wages that will enable him to form at once the habit of accumulation, because he will be of value to his employer from the beginning. Where there should be no necessity for immediate entrance on labor, a taste formed in the rudimentary school could be cultivated in higher technical schools, controlled or aided by government.

The subdivision of old trades into specialties, which grow into new trades, and the increased use of machinery, are arguments even better than Dr. Adam Smith's, a century ago, against long apprenticeship; and the same degree of skill can be gained in less time, where to learn and to teach are the ends, than where the labor is a matter of wages, and learning an incident. This instruction in handicraft would not conflict with that in letters. It is found in England that children employed in factories and receiving school instruction alternately are better scholars as well as better workers. It is well known that our country schools, kept through the winter only, and made up of boys who work on farms during the summer, will compare favorably with city schools, whose only recess is a long holiday. The training of the eye and the hand by drawing, measuring, handling forms and materials, cannot but have a beneficial reaction on the mind; and the learning how to *work*, which is something different from bodily *exercise*, is a most desirable preparation for any position in life.

There was a time when an artisan who could no more than read and write was an exception. To extend the limits of the learning that comes from books among workingmen was the first object of the public school. It has achieved the object; but those whom it reaches do not remain of the class of workingmen. This is not stated as an objection to the system, yet if among the thousands of workmen's children who are its subjects a small minority become skilled artisans, there is certainly a want left unsupplied, if not created; and a fear may be expressed that the community is being educated away from labor. Out of 52 lads graduating

from the Philadelphia Central High School in 1848, but 7 were engaged in mechanical employments some fourteen years afterwards. Out of 38 graduating in 1867, 21 became clerks, 6 salesmen, and 4 mechanics. Of 54 graduating in 1856, 30 became clerks and salesmen, and 11 mechanics. In each case, the total number includes all of whom any record could be made. The usual graduating age is about 17 years. It may be said that the pupils of the High School are not generally from the working class; but employers say that when they served their time, apprentices came very largely from the class corresponding to that whose sons graduate from the High School. The statistics of Girard College may be expected to be different, but of the 221 former pupils who were apprentices on Dec. 31st last, about one-half only, including 26 printers, engravers, etc., were learning mechanical trades. Human progress is always by exaggerated and reactive movements; and it may be that the time has come to revert to the instruction in labor of those who formerly had little other instruction. It is certainly too late to say that government has nothing to do with education. That point has been fixed, and we are passing on to another. It will soon be too late, we hope, to say that government has nothing to do with education, further than parents desire. And certainly education will not need to be any the more "compulsory" when it holds out the prospect of knowledge of a trade as well as of books.

It is too late, too, to say that the teaching of trades in schools is a new and untried notion. Industrial and technical schools, in Germany and France, have shown that it is practicable to instruct youths in this way in the manual arts, as well as polytechnic schools, here and abroad, can teach them the applied sciences. And even at home the principle of combining the study of letters and of handicrafts is illustrated in our reform schools, and in some of our benevolent institutions. Why should the State forbear to do that preventively which she does, to some extent, punitively? Why should not the children who have their natural protectors be, at least, as well provided for as those who have lost them?

I do not propose to dwell upon the details of this suggestion. My object will have been accomplished if it be fairly realized that apprenticeship, as our fathers knew it, is dying, and natu-

rally; that it belongs to a state of society which will probably never return, and that to lament its decay is as absurd as to mourn for the middle ages; yet, that the want which it supplied is more imperative than ever, and that there is no power but the State itself—the true Guild—that can build anew and on broader foundations the complete system of learning—the true Apprenticeship.

A REPORT OF THE DISCUSSION BEFORE THE SOCIAL
SCIENCE ASSOCIATION,
ON THE PAPER OF MR. JAMES S. WHITNEY,
ON APPRENTICESHIP.

March 21, 1872.

DR. RAY took the chair and said: The meeting is now open for discussion. Mr. Whitney has given us certainly an interesting and very suggestive paper. The subject has awakened a great deal of interest in Massachusetts, where they have established an industrial school, where many processes of manufacturing industry may be taught to about the same extent as reading, writing, and other elements of a school education are. What the result will be remains to be seen. If other schools are established they will furnish valuable hints to other States in their action.

Mr. Henry W. Arey, Secretary of Girard College for orphans, said: Mr. President,

Perhaps no object of discussion in this association of social science is, at this time, of more importance than the subject of manual labor. It has happened, that for a period of fifteen years it has been my fortune to be connected with this subject, having had charge during that time of the duty, which was imposed by the will of Mr. Girard on the city of Philadelphia, to find places for such of the orphans educated in that institution as were fit to go out to learn trades.

When we commenced the duty we found it a labor exceedingly difficult. We found that the system of apprenticeship that existed at the time of Mr. Girard's death, and during his lifetime especially, because he himself was a master of apprentices, largely filling his own vessels that went to sea with apprentices—had become to a certain extent obsolete. We, therefore, were obliged, if I may use an illustration, to endeavor to pull a boat

against a very strong headwind and a very adverse stream. Without attempting to follow up the experience that we have had year after year, and without, therefore, occupying but a few moments of the time of the meeting, I may plunge *in medias res*, and give two or three thoughts that perhaps our experience has given us, in reference to the difficulties of carrying out that system of apprenticeship; but in narrating what occurs to my mind at this moment, I shall be obliged to refer to cases which will reflect some little discredit upon those who represent the mechanical affairs of the city of Philadelphia.

The first difficulty which I think has caused a change in the system of apprenticeship here has been the change evidently in the luxury of living, which has produced, as a necessary result, an opinion among a large class of our people that manual labor is not as respectable as mental labor. From the time when Voltaire launched his epigrammatic sarcasm, that society is divided into two divisions, anvils and hammers, that thought seems to have been getting increased strength, until at the present time the honest father, who himself may have been a working man, conceives it not reputable to educate his children for mechanics. I am afraid, sir, that we are all censurable to a certain extent, at least, in giving countenance to that thought. We largely feel it among our own boys, we largely *see* it even in their results, in their education as apprentices.

The second difficulty is, that there has grown up among the employing men of the city of Philadelphia, and especially among those who conduct large establishments, an unwillingness to take upon themselves the care of the moral character of the boy as well as the education in the mere manual craft.

I presume, sir, you recollect very well the time when the mechanics of distinction in the city of Philadelphia took into his own house the apprentice; when that apprentice was cared for as a member of his family; when his rank and relation in the household were the same as his children. We have forgotten that the master's relation to the apprentice, at least, is that of the guardian; that he is in *loco parentis*; that he has more responsibility than the mere getting of a certain number of hours of labor from him; that he is bound to know where his apprentice spends his leisure time; that he should be bound to see that he spent

his Sunday in attendance upon divine worship, and to his associations of all kinds. The employing mechanic is unwilling, in the first place, to put the apprentice upon the level of his own children, and secondly, he is unwilling to give the time and attention to the moral character of the boy, as well as to the education of his hands. Among the best results that we have turned out from our institution are cases where boys have served their apprenticeships; but feeling that society does not sustain manual labor, but does look up to mental labor, they leave the workshop to find employment for their heads instead of their hands; and we have come to the conclusion that unless the system of apprenticeship is resorted to more largely than it has been for some time past, skilled labor will die out. As a proof of that, we find that within the last one or two years we have a very much larger number of applications for apprentices than before, and we have bound more boys during 1871 than in any other similar period heretofore. We have more applications now than we can fill, and if society helped the impression, that it was reputable to be an apprentice, and as reputable to work with the hands as with the brains, I think, so far at least as we are concerned, we would have great cause of congratulation. It has become manifest to us that there is a growing demand for apprentices. Consequently, if employing mechanics would be more liberal in the direction of taking a personal interest in their boys, they would not only have more applicants to learn manual arts, but they would have higher grades of boys.

It is perfectly natural that an orphan boy should desire to have something more than board, lodging and clothes; he needs sympathy, he needs moral direction, he needs the social pleasures of the household; he has none of these privileges, or but few of them at best. In the present state of apprenticeship, especially in the large establishments which are the desirable ones, where we should especially want to put the boys, they cannot get in; if by favor they succeed in getting in, the form of indenture is one we cannot execute; because the master takes no more responsibility than agreeing to give per week a small sum of money. If the boy is taken down with disease, he has no one to take care of him; no one to furnish him with medicines or medical attendance.

He loses during all that time the absolute means of paying for the bread that he requires.

We have therefore, as you will see, had an additional difficulty in carrying out the instructions of Mr. Girard, under his will, and we have been obliged to find places under the old Pennsylvania system of apprenticeship. The present form of indenture should be radically changed. The old Pennsylvania indenture was one which was liberal to the master, and at the same time was good for the boy. The present indenture is one that looks upon the transaction as simply a mercantile one.

Mr. Wm. H. Allen, LL. D., President of Girard College, said: Mr. President—The gentleman who has just taken his seat (Mr. Arey), has had many years' experience in binding out apprentices. This has been his duty for the last fifteen years, and I rise to confirm what he has said.

We have found in the city of Philadelphia, that the large manufacturers will not take apprentices at all. They hire boys as they hire men, and will assume no responsibility for their moral instruction, or for anything but to give them instruction in business, and in one single part of the business only.

There is another class who have a form of indenture of their own, and they will not take apprentices under any other, and this indenture is one which releases them from responsibility, whenever they choose. If he breaks a limb, or becomes sick, they have simply to dismiss him, and if he has no friends to take care of him he must go to the alms-house. We do not indenture our boys from the Girard College under any such system as that.

There is another class of mechanics and manufacturers who will take apprentices. They are usually men of smaller means, who employ but few hands and take one or two apprentices. It is to this class of mechanics that most of the boys of our institution go, who go to mechanical trades at all; and here I am reminded that the pupils of Girard College have changed very much their views of late in regard to occupations which they are to pursue in life; formerly there was a much greater disposition to go out as clerks in stores, or salesmen, than there is at present.

At present there is a strong desire among our boys to learn trades, but we have a good deal of difficulty in getting positions

which they like. I remember a boy, a very promising one, too, well educated, and capable, who waited, after he had finished his course of study, nearly a whole year in the hope of getting a position in a printing office. He wanted to learn what our friend, who has given the subject so exhaustive an analysis, speaks of, "the art preservative of all arts." He could not be received into any office to which application was made for him in this city. He was informed that the Trades Union would not allow it. The Printers' Union would not allow them to take an apprentice or they had all the apprentices the Trades Union permitted them to take, and after waiting a year he was obliged to do what many others have done, to go into a store.

I remember an application was made for a boy by a large manufacturer of shoes, in this city, who informed me that he employed 70 hands, wished the boy for a book-keeper or clerk. Said I: "This boy would prefer to learn a trade, can you let him employ part of the time in learning the mechanical portion of your business?" Said he: "If I allowed that boy to draw a thread, every man in my establishment would strike."

It seems to me, Mr. Chairman, that these rules of our Trades Unions, which refuse our youth the opportunity to learn an occupation by which they can make a living, are both selfish and short-sighted; selfish, because they say to the boys you shall not have an equal chance with us; we will hold you to a disadvantage in the battle of life; we will not permit you to learn our trades; and short-sighted because they compel many of our youth to grow up without an occupation by which they can make a living, compel them to live by their wits; sure to become in some form or other a tax upon the industry of the very men who have prevented them from learning an occupation by which they can make a living themselves.

Mr. Whitney said: The last report of the city trusts has a communication from Mr. Welsh, calling attention to the subject of training the pupils of Girard College in industrial occupations. I should like to know if that is carried out?

Mr. Arey replied: It is particularly desirable it should be, and possibly it may be done at some distant time, but there is little attention paid to it now. You can see the very great difficulty that arises in carrying out upon any general system the thought

that Mr. Whitney has thrown out. We take boys from 6 to 10 years of age, and we are obliged to send them out between 14 and 18, by the provisions of Mr. Girard's will. The large mass of the children we take are from conditions of life where they have no chance of education; a large portion come to us without even the elements of learning; do not even know their alphabet; consequently during the six or eight years they are there, the most material thing is the instruction of the mind, the education which the college is adapted to furnish.

We have, however, in connection with the college, given some instruction of this kind, limited it is true, but as much as we are enabled to give at the present time. There are some manual arts taught to the college boys, who are waiting for situations, after they have finished their term of study. They are assigned to different duties about the institution; for instance, a certain number to the carpenter, a certain number to the engineer, a certain number to the barn. We have also a room which we term there the shoe-room, in which boys are taught the making of the shoe, and in which all the repairing of the institution is done by the boys; making the shoe is not to any very large extent done. In connection with the higher instruction, the boys are also taught photography, not to any very large extent, but sufficient to enable them to go into galleries. They are taught electro-plating, and its different application to science and art. We hope at no distant day to have a more thorough and complete system. The grand difficulty is that the time does not allow it.

Mr. J. G. Rosengarten, said:

Mr. Chairman—There is one institution which I have the honor to be connected with that does to a certain extent, afford an opportunity for pupils from Girard College and institutions of that kind to become masters of the mechanical arts, if we had that which formed the gist and burden of Mr. Whitney's sermon, I mean, if there were here industrial schools, schools to allow them to master something more than the elementary parts of trades.

The Lincoln Institution was started originally as an apprentices' home, as it was known by the founders that it was no longer the custom of employers to take apprentices into their homes. It was believed that an establishment that should make

a home for these boys, give them shelter and nurture and care, and provide for them the kindly presence and assistance of women, and the help and advice of men as the managers of the institution, would go a great way to supplement that very serious want. The war coming as it did made it almost necessary to convert that, as so many other institutions were, for a time being converted, into an appliance supplementary to the necessities of the war. It was temporarily a home for soldiers' orphans. The necessity for that is passing away; our institution has again become what it was intended to be, a home for apprentice boys.

It is hoped to put in another place a home for the children that may be brought to the institution; this will enlarge the sphere of its influences and leave the present home to its original purpose, a home for apprentices. There are now in the Lincoln Institution 120 boys; about 60 of them are apprentices to trades or occupying similar positions; some of them are employed in banks, stores and offices. It is always my very great regret when I see our boys in places where they can learn nothing of manual labor, or training of the kind which will enable them to support themselves in life. Independent of the question of moral restraint, boys are, as a general rule, spoiled by the utter want of anything like industrial training. I know of no case in which application has been made for employment of Lincoln boys that has not been met cheerfully and every effort made to comply with it. When the Lincoln Institution shall have its sphere of usefulness enlarged, it will become a home for perhaps 200 boys, who may be apprenticed to trades and mechanic arts as we find employment for them. They will there find a home and shelter, the weekly stipend per boy paid to the institution is enough, eked out by individual gifts, which have been very liberal, for the support of the institution. The boys are clothed and cared for; there is an excellent night-school for them; a large number of ladies are connected with the institution, presided over by Miss Mary McHenry, whose name is a synonym of all usefulness in the city. This institution does a great deal of good in helping boys to get work and in watching them in the course of their work; but as matters stand now this is only a partial cure for this mischief; it does not supply, nor has it the means of supplying the great necessity for indus-

trial training, what are called in German *gewerbschulen*—manual labor schools—to teach mechanical arts and trades, and in French, *ecoles des arts et metiers*—schools where apprentices can be taught the highest branches of their respective arts. Now, I believe we are entirely without any such institution here. Girard College, in doing what it has done, and in what it promises for the future, limits its usefulness necessarily to those who are within its own walls. The manifest usefulness of that institution must necessarily be limited by the number to whom it gives a direct home and shelter; but when the boys go out from that grand charity or from any other of the numerous houses throughout the State and throughout the whole country, they need some institution to help them to become really good mechanics, and to take that leadership which good mechanics take and always deserve and are always sure to gain, if supported by fair exertion. Where are we to secure such establishments as that? I am sure it is hard to say.

The Franklin Institute is simply a gathering place for those who are established manufacturers, and for the exhibition of inventions. It has its lecture-rooms, but lectures are intended to popularize science. It is not within their scope, or within their field of present labor, to take the apprentices in their leisure hours, or make leisure hours for him, or give him a training. I am astonished, every night that I go to the night-schools of the Lincoln Institution, where the apprentices come home, to find the zeal and the interest with which the boys take up the ordinary elementary instruction. The same rule applies, as we all know from the public newspapers, and from our past experience to the night-schools established throughout the city; similar industry and intelligence and ambition would certainly be exhibited by the apprentices in gaining the mastery of their own trades, nor should we limit them simply to the one thing which they are obliged to do for a life-time in a great shop. How such training can be got I confess is a problem that I am not able to solve, but it is a question which Mr. Whitney has fairly put before us to-night, and one I think which ought to be met by careful consideration and discussion of the subject. To that end I move that Mr. Whitney be requested to allow the association print his paper together with the

discussion. It is a matter that ought to have a discussion far beyond the limits of the present audience.

Mr. Lorin Blodget, said: Mr. Chairman—I would like to say something in regard to the conditions under which so many of the employers of labor work: that is, extreme competition. It is not possible for a manufacturer to combat his competitors in the same kind of business in different cities and foreign countries, and to conduct the business upon the basis of the old system of employment, requiring those whom he employs to be in any manner under his control or moral direction. Now more than at any other time before, certainly for persons between 15 and 20 years of age, the large establishments have had to divide labor, and they divide it in such a manner that a single individual often learns only the working of one machine. This is especially the case in the large locomotive shops, and in the manufactories of the larger class of machinery. This has grown up out of the great competition that exists at the present day, and of the immense business that these establishments must do. I have had an opportunity of seeing in what manner these are conducted, from the fact that during the past year I have examined, in connection with the supervision of the census, nearly all these establishments in this city. The employment of really skilled labor is one of the necessities, and one of the most difficult things for one of these proprietors. To a certain extent they are obliged to send out of the country for skill; they cannot spend time to train young men for their business; they cannot take young men indiscriminately to do the work they must do. Consequently they often have to send to England to bring out workmen to do the work of their establishments. It is a singular fact that in these various branches of industry, you do not see many of the young men of our country. This competition is the one great thing, as I say, which forces them to adopt only those who are the very best. I think, however much we may desire to see our young men prepared, we cannot blame the establishments for the course which they are obliged to take in conducting their particular branch of industry under the sharp pressure from other establishments in this country, and from foreign wares. In self defense they are obliged to do as they do; while I agree with the gentleman that we cannot restore apprenticeships, I doubt whether we can modify our indentures so as to

open business to apprentices at all, in this way or in a general way. Of course, there are many special and skilled industries, that hardly rise to large manufactories, jobbers rather than manufacturers, which can be filled in that manner. But if our schools had technical or special departments the young man receiving his ordinary education would get at the same time a degree of training in special branches. The boy might have a certain mark of attainment given him in leaving the ordinary school which would enable one of these employers to take him as a skilled boy ; that youth to a certain extent would be qualified to attain in the end the highest degree of skill. It certainly is necessary to take some step to restore our own American people to their place in mechanic arts, and give them some chance in this race for life. It certainly is necessary to conduct the education of the youth here, on a different system from what has existed heretofore. I know of a manufacturer who will receive 50 skilled workmen from abroad and will start into successful competition against foreign products with the largest manufactory here, and yet there is not a single person training to take the position of one of these foreign workmen. If we had this preparatory system going on, we could ultimately replace them all ; but as we can hardly hope to change the state of affairs in the present large manufactories, it is perhaps better to let them go on as they are. The whole country is alive with a thousand new industries ; there are at least 300 new industries started within the last ten years. Their aggregate products during the last year, 1870, amounting to five or eight millions dollars. In these new industries are to be found openings for our own citizens. As we all know, there are a great many men who are well off now, who 20 years ago were poor enough, and who owe their success in life to the early mastery of the higher departments of mechanical science.

Now if these suggestions can be laid properly before the Legislature, or before the citizens first, because they must move the Legislature, we can add to the education of the people an industrial education or a technical education. This would take the boys out of the streets at night and enable them to take care of themselves properly in the future.

Mr. Allen said : There is one reason, which Mr. Blodget has not named, why our American boys are not becoming skilled

workmen. Young America is a fast boy and is not willing to remain learning a trade long enough to become a skilled workman, and his mother is not willing that he should remain, when she knows the boy can get journeyman's wages by the time he is eighteen or nineteen years of age.

Mr. Thomas S. Ross said: Mr. Chairman—I intend to say but a few words in reference to the views of Mr. Whitney's excellent paper.

I am myself, at the present time, a journeyman workman, employed at my trade, and say that it is not the wish of the apprentice to gain higher wages, nor is it the wish of his mother to see him advanced more rapidly, that causes him to be a bad mechanic, but the man working alongside of him is as much to blame for this as the boy or his mother. The journeyman who has an apprentice alongside of him in the second and commencement of the third year, sees that he is beginning to do work as good as he is himself, and he gets jealous of him and induces him to leave his present employer and seek his fortune among strangers in the hope of getting better wages, thus driving him about and making him a bad mechanic all his life-time by his seeking rather for higher wages than good workmanship. Now this is positively the case from the largest and best workshops to the poorest; and there is where the Legislature could come in with its power and insist upon apprentices being bound, so that the man alongside of him cannot make or encourage him to run away, and so that he cannot run away himself, and so that the man he is employed by and bound to cannot drive him away.

The American youth, and those especially that the two gentlemen on the other side (Mr. Arey and Mr. Allen) have spoken about, have received in their early childhood, up to the time of their coming to be apprentices, a peculiar education. The teachers are generally females of refined and cultivated minds, and the minds of the boys are elevated to something higher than the rough-shod, full-bred mechanic. What is the condition he is found in at the age of sixteen or seventeen, when he is going to be taken into a large establishment, which are the establishments chiefly sought after, and what is the condition of the boys as found there, and what is the relation of the partners to them? As a general thing, and especially in the case of Baldwin's locomotive

works, there are fifteen or twenty silent partners, who have never had a hammer in their hands, nor the chisel, the plane, nor the pencil or brush ; they do nothing more than find the money to carry on the business and receive large profits ; that is all they care about the business. In order to do this they do not select men of refinement and culture to do the work. They select men who are pushers and drivers, who know better how to push than to do the work ; they select these men to superintend directly the work. It is into their charge that these boys of sixteen go from the hand of the kind female teacher, with all the learning and refinement of the school-room fresh upon his mind. The proprietors never see him ; they do not see any workmen ; the go-between is the superintendent.

The first thing done to that boy, by the boys who are in their last year, is to break him in ; but instead of breaking him in and teaching him the business, they break his spirit and then he is broke in ; he learns to chew and smoke, and to swear and to play cards. This you would see at the dinner hour, when from 50 to a 100 sets of boys can be found playing cards at the Baldwin shop, and the youth of good principles, when he begins to look back to his early youth, becomes so disgusted that he leaves the trade because he thinks he can make an honest living outside.

These are the causes of the decline of the apprentice system, more than the wish or feelings of the mother or the desire of the boy to get higher wages.

The only cure for this is the legislative action, which I have before spoken of.

Mr. Arey said : I believe in this matter of getting legislative action in reference to this apprentice system, and also in the establishment of industrial schools. They would accomplish a vast amount of good, and secure the making of better workmen and the production of more skilled labor for which there is a great demand.

The gentleman on the other side (Mr. Ross), has truly said that the employers do not know their apprentices. This is true. I well remember an instance where I bound a boy to a machine establishment, and it became necessary to have negotiations about misconduct. I positively found, to my astonishment, that the master to whom I bound that boy under a Pennsylvania indenture did not know his apprentices in his shops. He did not know them at all, and this is the case also in many other places. There is a great deal of merit in what the gentleman on the other side has said. I think that legislation is necessary in order to keep the boy at his trade, and hold the master to his indentures.

After a vote of thanks to Mr. Whitney for his paper, the meeting adjourned.